INDEX TO VOLUME II

Abilities and disabilities, special, bibliography, 329, 338; measurement, 284, 285; nature of special traits, 284.

Abnormalities and maladjustments, emotional, as indicative of character, 186; association tests, 186; available test materials, 193; bibliography, 259; disguised objective measures, 190; of delinquents, 189; race differences, 190; relation to intelligence, 189; relation to school failure, 189; review of studies, 186; use of questionnaire to determine, 187.

Accounting, public school, background, 99; bibliography, 163; fields of influence, 100; internal accounting, 103; local systems, 102; report of 1921, 100; state systems, 101; theories of administration, 101.

Accuracy, as personality trait, 194; bibliography on tests, 260; review of studies, 194.

Activity, bibliography on tests, 260; review of studies, 194; use in measurement of personality, 194.

Administration, finance and business, bibliography, 163; economies, 139; fiscal control and textbooks, 134; in institutions of higher education, 116; public relations, 113; public school accounting, 99; public school budget, 105; research and survey technics, 114; revenues and taxation, 108; state and federal aid, 148.

Aesthetic response, artistic discrimination, 195; as factor in personality, 195; available test materials, 196; bibliography on tests, 260; review of studies, 195; studies of racial tastes, 195.

Aggressiveness and submission tests, available test materials, 197; bibliography, 260; review of studies, 196.

Aid, financial, for schools, bibliography, 180; distribution of state, 155; early studies, 148; position of federal government, 161; research of the past decade, 149; responsibility of state, 148; special phases of state, 152.

American Educational Research Association, officers for 1931-32 (inside front cover, Vol. II, No. 1); officers for 1932-33 (inside front cover, Vol. II, Nos. 2, 3, 4, 5); qualifications for membership (inside front cover, all issues); list of members, 426.

Appearance as index of character, bibliography on studies, 260; review of studies, 197.

Auditorium-gymnasium facilities, study of, 386.

Bibliographies, character education, 93; character tests, 258; commercial subjects, 92; construction and interpretation of psychological tests, 335; equipment and apparatus, 416; finance and business management in institutions of higher education, 171; financial economies in business management of schools, 174; fiscal control and textbooks, 174; foreign languages, 90; general uses of psychological tests, 337; home economics, 93; industrial arts, 93; language, 87; Latin, 91; mathematics, 81; measurement of general intelligence, 325; measurement of special abilities and disabilities, 329; music, 92; nature and extent of mental differences, 333; physical and biological sciences, 82; physical education, 94; public relations, 168; public school accounting, 163; public school budget, 164; reading, 86; research and survey technics, 169; revenues and taxation, 166; school buildings, 411; school site, 410; school supplies, 420; social studies, 88; state and federal aid, 180; surveys preliminary to a school building program, 406; uses of psychological tests for atypical groups, 338; vocational aptitude tests, 341.

Blackboards, recommended dimensions, 385.

Bookkeeping, methods of teaching, bibliography on commercial subjects, 92; comparison of journal, ledger, and balance sheet approach, 70.

Budget, public school, aims and benefits, 106; appraisal, 107; bibliography, 164; procedure, 105; state systems, 106.

Cafeteria, school, study of, 386; equipment for, 393.

Character education, bibliography, 93; difficulties involved in research, 76; direct method, 76; dramatics as a method, 77; instructional compared with developmental methods, 76; psychological studies, 77; status of teaching of morals in public high schools, 77; technics developed, 77; values of instruction in Biblical information, 76.

Character tests. *See,* Tests, character.

Character, types of, bibliography of studies, 269; review of studies, 255.

Coatrooms, wardrobes, and lockers, studies of, 385.

Commercial subjects. *See,* Typewriting, shorthand, and bookkeeping.

Committees to review research, finance and business administration, 95; school buildings, grounds, equipment, and supplies, 343; special methods, 1; tests of intelligence and aptitude, 271; tests of personality and character, 183.

Community, ability to finance building program dependent upon three factors, 362; analysis of character of, 348; measurement of population growth, 348; method of measuring ability to pay for building program, 362.

Confidence and inferiority, as indications of character, 197; bibliography on studies, 260; review of studies, 197.

Cooperation, service, and negativism, as indications of character, 198; available test materials, 200; bibliography of studies, 261; review of studies, 198.

Delinquents, bibliography of studies, 261; diagnostic test, 201; intelligence tests for, 314; studies of predisposing factors, 200; tests of character elements, 201; trends, 200.

Emotions, bibliography of studies, 261; measures of, 201; names of tests, 202.

Equipment and apparatus, bibliography, 416; defined, 345; for cafeteria, 393; for fine arts, 395; for industrial arts, 390; for office, 395; for physical education, 395; for physical sciences and household arts, 389; importance of planning, 387; library, 391; maps, 392; nature of literature on, 387; picture and sound, 391; purchase of, 393; seating, 388; stage, 392.

Excitability, available tests, 203; bibliography of studies, 261; measures of, 203; relation to physiological condition, 203.

Expression, handwriting, and will-temperament, as indications of character, 204; available tests, 206; bibliography of studies, 263; tests of, 204.

Finance and business management in institutions of higher learning, accounting procedure, 116; allocation of expenditures, 122; bibliography, 171; budgetary procedure, 117; calculation of unit costs, 124; cost per student classified by curriculum, 125; cost per student classified by function, 125; cost units, 128; endowment investments, 132; income per student, 120; increases in student tuition and fees, 130; ineffective expenditures, 129; management of invested funds, 132; organization for, 116; percentage distribution of receipts, 120; property insurance, 118; recent increases in

INDEX TO VOLUME II

Abilities and disabilities, special, bibliography, 329, 338; measurement, 284, 285; nature of special traits, 284.

Abnormalities and maladjustments, emotional, as indicative of character, 186; association tests, 186; available test materials, 193; bibliography, 259; disguised objective measures, 190; of delinquents, 189; race differences, 190; relation to intelligence, 189; relation to school failure, 189; review of studies, 186; use of questionnaire to determine, 187.

Accounting, public school, background, 99; bibliography, 163; fields of influence, 100; internal accounting, 103; local systems, 102; report of 1921, 100; state systems, 101; theories of administration, 101.

Accuracy, as personality trait, 194; bibliography on tests, 260; review of studies, 194.

Activity, bibliography on tests, 260; review of studies, 194; use in measurement of personality, 194.

Administration, finance and business, bibliography, 163; economies, 139; fiscal control and textbooks, 134; in institutions of higher education, 116; public relations, 113; public school accounting, 99; public school budget, 105; research and survey technics, 114; revenues and taxation, 108; state and federal aid, 148.

Aesthetic response, artistic discrimination, 195; as factor in personality, 195; available test materials, 196; bibliography on tests, 260; review of studies, 195; studies of racial tastes, 195.

Aggressiveness and submission tests, available test materials, 197; bibliography, 260; review of studies, 196.

Aid, financial, for schools, bibliography, 180; distribution of state, 155; early studies, 148; position of federal government, 161; research of the past decade, 149; responsibility of state, 148; special phases of state, 152.

American Educational Research Association, officers for 1931-32 (inside front cover, Vol. II, No. 1); officers for 1932-33 (inside front cover, Vol. II, Nos. 2, 3, 4, 5); qualifications for membership (inside front cover, all issues); list of members, 426.

Appearance as index of character, bibliography on studies, 260; review of studies, 197.

Auditorium-gymnasium facilities, study of, 386.

Bibliographies, character education, 93; character tests, 258; commercial subjects, 92; construction and interpretation of psychological tests, 335; equipment and apparatus, 416; finance and business management in institutions of higher education, 171; financial economies in business management of schools, 174; fiscal control and textbooks, 174; foreign languages, 90; general uses of psychological tests, 337; home economics, 93; industrial arts, 93; language, 87; Latin, 91; mathematics, 81; measurement of general intelligence, 325; measurement of special abilities and disabilities, 329; music, 92; nature and extent of mental differences, 333; physical and biological sciences, 82; physical education, 94; public relations, 168; public school accounting, 163; public school budget, 164; reading, 86; research and survey technics, 169; revenues and taxation, 166; school buildings, 411; school site, 410; school supplies, 420; social studies, 88; state and federal aid, 180; surveys preliminary to a school building program, 406; uses of psychological tests for atypical groups, 338; vocational aptitude tests, 341.

Blackboards, recommended dimensions, 385.

Bookkeeping, methods of teaching, bibliography on commercial subjects, 92; comparison of journal, ledger, and balance sheet approach, 70.

Budget, public school, aims and benefits, 106; appraisal, 107; bibliography, 164; procedure, 105; state systems, 106.

Cafeteria, school, study of, 386; equipment for, 393.

Character education, bibliography, 93; difficulties involved in research, 76; direct method, 76; dramatics as a method, 77; instructional compared with developmental methods, 76; psychological studies, 77; status of teaching of morals in public high schools, 77; technics developed, 77; values of instruction in Biblical information, 76.

Character tests. *See,* Tests, character.

Character, types of, bibliography of studies, 269; review of studies, 255.

Coatrooms, wardrobes, and lockers, studies of, 385.

Commercial subjects. *See,* Typewriting, shorthand, and bookkeeping.

Committees to review research, finance and business administration, 95; school buildings, grounds, equipment, and supplies, 343; special methods, 1; tests of intelligence and aptitude, 271; tests of personality and character, 183.

Community, ability to finance building program dependent upon three factors, 362; analysis of character of, 348; measurement of population growth, 348; method of measuring ability to pay for building program, 362.

Confidence and inferiority, as indications of character, 197; bibliography on studies, 260; review of studies, 197.

Cooperation, service, and negativism, as indications of character, 198; available test materials, 200; bibliography of studies, 261; review of studies, 198.

Delinquents, bibliography of studies, 261; diagnostic test, 201; intelligence tests for, 314; studies of predisposing factors, 200; tests of character elements, 201; trends, 200.

Emotions, bibliography of studies, 261; measures of, 201; names of tests, 202.

Equipment and apparatus, bibliography, 416; defined, 345; for cafeteria, 393; for fine arts, 395; for industrial arts, 390; for office, 395; for physical education, 395; for physical sciences and household arts, 389; importance of planning, 387; library, 391; maps, 392; nature of literature on, 387; picture and sound, 391; purchase of, 393; seating, 388; stage, 392.

Excitability, available tests, 203; bibliography of studies, 261; measures of, 203; relation to physiological condition, 203.

Expression, handwriting, and will-temperament, as indications of character, 204; available tests, 206; bibliography of studies, 263; tests of, 204.

Finance and business management in institutions of higher learning, accounting procedure, 116; allocation of expenditures, 122; bibliography, 171; budgetary procedure, 117; calculation of unit costs, 124; cost per student classified by curriculum, 125; cost per student classified by function, 125; cost units, 128; endowment investments, 132; income per student, 120; increases in student tuition and fees, 130; ineffective expenditures, 129; management of invested funds, 132; organization for, 116; percentage distribution of receipts, 120; property insurance, 118; recent increases in

income, 119; relation of cost to classification of students, 129; relation of cost to size of institution, 128; relation of endowment income to other factors, 133; relation of income to ability to support education, 119; scholarships, 131; sources of revenue, 120; student employment, 132; student hour costs, 125; student loans, 131; student tuition and fees, 130; summary and conclusions, 129; summary and recommendations, 118, 132, 133; total and current costs per student, 124.

Financial economies in school administration, administration of school funds, 139; bibliography, 174; heating and ventilation, 140; in curriculum management, 146; insurance of school property, 141; janitorial service, 140; maintenance of school property, 141; pupil-teacher ratio, 147; relation of size of administrative unit to school costs, 145; selecting, purchasing, and distributing school supplies and equipment, 143; transportation of pupils, 144; type of school organization, 146.

Financing the school plant, ability of community for, 362; methods of payment, 363; relation to current cost of maintaining, 362.

Fiscal control in management of schools, bibliography, 174; independence versus dependence, 135; miscellaneous, 137; names of textbooks, 134; unit versus multiple control, 136.

Happiness, as indication of personality, 206; available tests, 207; bibliography on studies, 262; studies of, 206.

Home background, as indication of personality, 207; bibliography on studies, 262; scales for rating, 207, 208.

Home economics, methods of teaching, agencies for the promotion of research, 71; bibliography, 93; distribution of time in class, 72; home projects, 72; questionnaire studies, 72; single and double periods compared, 71; summary of findings, 72; value of pupil notebooks, 72.

Honesty and deception, as personality traits, 208; available tests, 212; bibliography of studies, 262; review of studies and tests, 208.

Humor, as indication of character, 212; available tests, 213; bibliography of studies, 263; review of studies, 212.

Industrial arts, bibliography, 93; trend of shop teaching methods, 75; useful projects compared with exercises, 74; use of standard models in teaching, 74; variety of teaching devices collected, 75.

Inhibition, caution, and self-control, as indications of character, 213; available tests, 214; bibliography of studies, 263; review of studies, 213.

Intelligence, general. *See* Tests, intelligence.

Interests, as indications of personality, 214; available tests, 217; bibliography of studies, 263; review of studies, 214.

Introversion-extroversion, as indications of personality, 217; available tests, 220; bibliography of studies, 263.

Language, English, bibliography, 87; concepts needed by college freshmen, 35; cooperation between the English department and other departments, 40; curriculum investigations, 35; differentiated instruction, 40; effect of class size on achievement, 42; evaluation of composition scales, 39; investigations in correct usage, 37; measuring textbooks, 36; patterns of workmanship in composition, 42; relation between composition ability and general intelligence, 39; social utility of items of usage, 36; tendencies toward functional grammar, 36; validity of formal language tests, 38; vocabulary content, 39.

Languages, modern, foreign, bibliography, 90; direct method, 48; eclectic method, 49; emphasis on grammar, 48; free composition method compared with the translation method, 53; grammar translation method, 50; learning exercises for vocabulary, 52; miscellaneous studies, 54; questionnaire study of methods used in study of, 50; research needed, 54; trends in methods, 47; value of repetition, 53; visual-auditory methods, 52.

Latin, bibliography, 91; Classical Investigation, 56; objective presentation, 62; questionnaire study of methods used, 64; specialized assignments, 65; studies of reading, 58; training in derivation, 60.

Leadership, as indication of personality, 220; bibliography of studies, 263; tests and ratings, 220.

Mathematics, methods of teaching, bibliography, 81; criticisms of research studies on, 7; diagnostic testing, 14; evaluation of supervised study, 7; individual instruction, 16; problem solving, 11; recitation, 20; remedial instruction, 14; study of class size in, 18, 19; teaching geometric concepts, 20; value of drill, 17; work-book and textbook compared, 19.

Maturity, social and emotional, as factor in personality, 220; bibliography of studies on, 264; rating scales available, 221.

Medical inspection facilities, study and description of, 385.

Mental differences, bibliography, 333; due to race, 291; due to sex, 290; due to social and economic factors, 292; growth of intelligence and adult mental age, 288; individual, 289.

Methods. *See,* Language, mathematics, physical and biological sciences, reading, and similar specific headings.

Methods, special, bibliography, 81; character education, 76; commercial subjects, 67; foreign languages, 47; home economics, 71; industrial arts, 74; language, 35; Latin, 56; mathematics, 7; music, 66; physical and biological sciences, 21; physical education, 78; reading, 29; social studies, 43.

Moral knowledge and ethical judgment, available tests, 226; bibliography of studies, 264; measures of, 221; names and uses of tests, 221.

Morphology, as indication of character, 226; bibliography of studies, 264; review of studies, 226.

Music, methods of teaching, bibliography, 92; memorization, 66; visual, auditory, and motor memory, 66; whole and part learning, 66.

National Education Association, Department of Superintendence report cited, 100; relationship to American Educational Research Association (front inside cover, all issues); reports on accounting, 99, 100; Research Bulletins referred to, 103, 111.

Opinions, attitudes, and prejudices, as indications of character, 227; available tests, 233; bibliography of studies, 265; names and descriptions of tests, 227.

Originality, imagination, and resourcefulness, as indications of character, 233; bibliography of studies, 265; review of studies, 233.

Perseveration, as indication of character, 234; bibliography of studies, 266; review of studies, 234.

Persistence, perseverance, and effort, as indications of character, 234; available tests, 236; bibliography of studies, 266; review of studies, 234.

Physical and biological sciences, methods of teaching, bibliography, 82; diagnosis and remedial instruction, 26; demonstration compared with oral instruction, 27; drawings, 24; even front and rotation system compared, 26; lecture demonstration versus individual laboratory work, 21; methods of reporting exercises, 25; sequence of laboratory and classroom work, 26; three methods compared, 25; unit type of assignment, 23; visual aids, 24; zoology in high school, 28.

Physical education, methods of teaching, bibliography, 94; developing footskills, 78; effect of coaching, 78; equipment for, 395; formal and informal methods compared, 78; investigation of, 78.

Physiological indices of character, bibliography of studies, 266; review of studies, 236.

Population, density and saturation point, 351; measurement of growth, 348; measurement of school, 352, 353; racial and social composition of, 351.

Psychological tests, as predictive device, 301; bibliography on use of, for atypical groups, 338; bibliography on uses, 337; for the blind, 317; for the deaf, 316; for the delinquent and dependent, 314; for the feeble-minded, 308; general uses, 300; of persons having physical defects and abnormalities, 318; of persons having speech defects, 318; prediction of academic success in college, 303; prediction of teaching success, 305; use for atypical group, 308; use in classification, 301; use in identification of the subnormal, 310; use in identification of the superior, 311.

Psycho-galvanic responses, as indications of personality, 237; bibliography of studies, 266; review of studies, 237.

Public relations to school finance, avenues of approach to the public, 113; bibliography, 168; campaigns and continuous publicity, 113; evaluation of motives to be utilized, 113; interest in school finance, 113; media of publicity, 113; score cards for publicity materials, 113.

Ratings, reputation measures, available scales, 245; bibliography of studies, 266; review of studies, 238.

Reading, methods of teaching, achievement of high-school pupils, 29; bibliography, 86; group and individual instruction, 30; improving achievement, 29; improving reading in content subjects, 31; increasing comprehension and appreciation, 33; influence of the teacher in improving, 30; relative value of different reading-study procedures, 32; stimulating reading interests, 34.

Research and survey technics, in studies of school finance, bibliography, 169; bond calculation tables, 114; critical ratio, 114; index numbers, 114; legal analyses, 115; the nomograph, 115; state aid calculations, 114; summary of technics, 115; testing and criticisms of unit costs, 114.

Revenues and taxation, for schools, bibliography, 166; general property tax, 110; individual state tax systems for schools, 111; major types of taxes, 109; newer types of taxes, 111; sources of revenues by character of receipts, 108; sources of revenues by governmental units, 108; ultimate limits, 112.

School buildings, bibliography, 411; contributions of surveys, 371; cost of, 376; development in design, 371; heating and ventilation, 380; legal and financial questions in construction, 372; lighting and orientation, 382; problems in planning, 373; problems of construction, 382; score cards for, 384; utilization of, 375. *See also,* School plant.

School plant, best location of, 359, 360; bibliography, 410, 411; determining expense of building program, 361; disposing of existing, 358; distance from, analysis of, 359; future requirements, 359; location, on basis of population density, 360; measuring ability of community to finance, 362; methods of locating, 359; methods of payment, 363; operation and maintenance, 378; plan of organization and educational aspects, 358; problems in achieving the ultimate, 359; score cards for rating, 356, 384; size of building, dependent upon certain factors, 360; standards for appraisal, 354; state regulation of, 355; utilization, 357.

School population, density of, as basis for locating school plant, 360; measures of, 352; methods of forecasting, 352, 353; relationship to total population, 352.

School site, acquisition and cost, 367; bibliography, 410; factors in selection, 364; landscaping, 368; size of, 365; standards for, 364; utilization, 368.

School success and failure, as character factors, 246; bibliography of studies, 267; review of studies, 246.

School supplies, accounting for, 404; bibliography, 420; control of, 397; definition and classification, 397; delivery and storage of, 402; ordering, 400; payment for, 403; requisitioning and distribution of, 403; selection of, 400; standards of, 398.

Score cards, for buildings, 356, 384; for English textbooks, 36; for publicity material, 113; for school sites, 364.

Self-appraisal, as means of character study, 248; bibliography of studies, 267.

Sex differences, bibliography of studies, 268; review of studies, 249.

Shorthand, methods of teaching, bibliography on commercial subjects, 92; isolated words and sentences, 69; manual, direct reading and direct writing methods compared, 69.

Sociability, as indication of character, 251; available tests, 252; bibliography of studies, 268.

Social studies, methods of teaching, bibliography, 88; contract method, 44; definite versus indefinite written assignments, 43; effect of extensive and intensive reading, 45; effect on achievement of questions included in material, 45; lecture versus question and answer method of teaching history, 43; miscellaneous studies, 46; motion pictures, 46; type-study versus textbook, 43; whole and part methods, 45.

Speed, as personality factor, 252; bibliography of studies, 268; review of studies, 253.

Suggestibility, as indication of personality, 253; available tests, 254; bibliography, 268; review of studies, 254.

Surveys, appraisal of school building, 347; bibliography on preliminary, to school building program, 406; cost of, 348; criteria of school building, 346; defined, 346; legal and financial problems in school building, 372; preliminary to school building program, 346; scope of school building, 346.

Test construction and interpretation, bibliography, 335; constancy of the I. Q., 298; correlations, uses of, 299; principles of, 295; reliability, 298; selection of items, 295; use of scores and norms, 296; validity of different types compared, 296.

Tests, character, of abnormalities, 186; accuracy, 194; activity, 194; aesthetic response, 195; aggressiveness, 196; appearance, 197; bibliography, 258; confidence, 197; cooperation, 198; delinquent trends, 200; emotions, 201; excitability, 203; expression, 204; happiness, 206; home, 207; honesty, 208; humor, 212; inhibition, 213; interests, 214; introversion, 217; leadership, 220; maturity, 220; moral knowledge, 221; morphology, 226; opinions, 227; originality, 233; perseveration, 234; persistence, 234; physiological indices of character, 236; plan of review, 185; psycho-galvanic responses, 237; reputation measures, 238; school success, 246; self-appraisal, 248; sex differences, 249; sociability, 251; speed, 252; suggestibility, 253; types, 255.

Tests, intelligence, bibliography, 335; construction and interpretation, 295; for atypical group, 308; for the blind, 317; for the deaf,

316; for the delinquent and dependent, 314; history of, 274, 279; non-verbal, 281; of differences due to social and economic factors, 292; of race differences, 291; of sex differences, 290; of special abilities and disabilities, 284; terminology, 283; use of results, 300; verbal, 280.

Tests, vocational aptitude, bibliography, 341; classification of, 322; history, 321.

Textbooks on business management. *See,* Fiscal control.

Typewriting, methods of teaching, bibliography on commercial subjects, 92; dictaphone method, 67; effect of rhythmic music on practice, 67; single versus double period of practice, 68; supervised compared with unsupervised students, 68; use of nonsense material, 67; whole versus part learning, 67.